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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/829,650

04/22/2004

Lawrence M. Marks

2014-02

7007

4897

7590

02/18/2005

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EXAMINER

MCCORMICK EWOLDT, SUSAN BETH

ART UNIT

PAPER NUMBER

1654

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/829,650

Applicant(s)

MARKS ET AL.

Examiner

Susan B. McCormick-Ewoldt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-10 is/are rejected:
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

The amendment of January 6, 2005 is hereby acknowledged and entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### **Claims Pending**

Applicant has withdrawn claims 1 and 2 without traverse in the paper filed August 9, 2004. Claims 3-10 will be examined on the merits.

### **Claim Rejections - 35 USC § 103**

Claims 3-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benjilali *et al.* ("Method to Study Antimicrobial Effects of Essential Oils: Application to the Antifungal Activity of Six Moroccan Essences), of Haas *et al.* (2003/0156974) and Romano *et al.* (US 6,103,683) and Privas (US 5,221,025).

Privas (US 5,221,025) discloses the use of an electrical apparatus for fumigation (column 5, line 8-9).

This is a new ground of rejection; however, Applicant's arguments filed January 6, 2005 have been fully considered as they apply to this new ground of rejection.

Applicant argues that Benjilali does not disclose or suggest that thyme oil can be mixed with water and dispersed throughout a dwelling. This is not persuasive as Benjilali discloses that thyme oil does inhibit molds which can show that thyme oil could be used as a dispersal agent inside a dwelling to eradicate mold.

Applicant argues that in Romano *et al.* (US 6,103,683), water is not a required element of the disinfecting solution. This is not persuasive as Romano states the composition may be formulated as either liquid or non-liquids. The liquids may be aqueous (water) compositions and liquids compositions are preferred (column 2, lines 61-63). In addition Romano teaches thyme oil with water (column 12, 3<sup>rd</sup> table). Even though Romano does not disclose dispersing the solution using an electrical disperser, one skilled in the art would be motivated to reasonably expect to use an electrical diffuser for dispersing the solution for fumigation as shown by Privas.

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Applicant argues that Haas does not teach dispersing thyme oil and water with an electrical diffuser. This is not persuasive as Haas suggested the method includes an application of a **suitable anti-microbial fluid** (emphasis added) for the delivery of a spray for eradication of mold inside a dwelling. It would have been known in the art to use thyme oil and water or any type of an anti-microbial composition to eradicate mold based on this reasonable expectation of success that dispersal of an antimicrobial composition would eradicate mold.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benjilali *et al.*, Haas *et al.*, Romano *et al.*, and Privas as applied to claims 3-5 and 7-10 above and further in view of Beerse *et al.* (US 6,210,695), Takaishi *et al.* (US 4,533,770), DeAth *et al.* (US 6,346,281 B1), Yamaguchi (US 5,658,584), Ryan *et al.* (US 6,352,702), Holzner (US 6,479,456 B1), Kazarinova *et al.* (RU2102085 C1) Ledntev *et al.* (RU 2102077 C1) and Hansen (EP 1095567 A1).

As discussed above, the combination of Benjilali, Haas Romano and Privas is considered to teach the claimed method of mold eradication using thyme oil and water. However, the references do not specifically teach using all of the ingredients in claim 6.

A process of eradication of mold in a dwelling by dispersing a solution of thyme oil and water with a second solution consisting of thyme oil, water and essential oils on surfaces of the dwelling, is claimed.

Beerse *et al.* (US 6,210,695) discloses using natural essential oils considered as antibacterial or antimicrobial which include lemon oil, rosemary oil, thyme oil, lavender oil, clove oil, tea tree oil, citronella oil, lemongrass oil, cedarwood oil, eucalyptus oil and fir oil (column 6, lines 64-67; column 7, lines 1-6).

Takaishi *et al.* (US 4,533,770) discloses using patchouli oil and vetiver oil as an antimicrobial activity (column, lines 22-29 and Example 2).

DeAth *et al.* (US 6,346,281 B1) discloses oils of thyme, lemongrass, clove, eucalyptus, rosemary, garlic, orange, niaouli, lavender, lemon and peppermint as essential oil for the antimicrobial composition (see EXAMPLE 5 and TABLE 5).

Yamaguchi (US 5,658,584) discloses ingredients that are known as antimicrobial substances and can be used in combination with the invention such as thyme, clove, peppermint, orange, cedarwood and cypress (column 4, lines 24-36).

Ryan *et al.* (US 6,352,702) discloses an antimicrobial composition comprising an effective amount of clove, eucalyptus, cajaput, lemongrass, lavender and tea tree oils to be effective as a disinfectant and antimicrobial surface cleaner (column 1, lines 16-31; column 2 lines 7-8).

Holzner (US 6,479,456 B1) discloses an ingredient that exhibits antimicrobial activity such as rosewood essential oil (TABLE 1; column 10, lines 3-10).

Kazarinova *et al.* (RU2102085 C1) discloses spraying in the air in a room with essential oil of marjoram as a disinfecting agent which has antimicrobial activity (abstract only).

Ledntev *et al.* (RU 2102077 C1) discloses biologically active substance having antimicrobial activity such as ylang-ylang, peppermint, lemon, orange, eucalyptus, fir and lavender (abstract only).

Hansen (EP 1095567 A1) discloses oregano as the active agent as a disinfectant or fungicide for the control of mildew (abstract only).

These references show that it was well known in the art at the time of the invention to use the claimed ingredients in compositions that have anti-microbial activity. It is well known that it is prima facie obvious to combine two or more ingredients each of which is taught by the prior art to be useful for the same purpose in order to form a third composition which is useful for the same purpose. The idea for combining them flows logically from their having been used individually in the prior art. *In re* Pinten, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re* Susi, 58 CCPA 1074, 1079-80; 440 F.2d 442, 445; 169 USPQ 423, 426 (1971); *In re* Crockett, 47 CCPA 1018, 1020-21; 279 F.2d 274, 276-277; 126 USPQ 186, 188 (1960).

Based on the disclosure by these references that these substances are used in compositions for antimicrobial activity, an artisan of ordinary skill would have a reasonable expectation that a combination of the substances would also be useful in creating compositions for antimicrobial activity. Therefore, the artisan would have been motivated to combine the claimed ingredients into a single composition. No patentable invention resides in combining old ingredients of known properties where the results obtained thereby are no more than the additive

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effect of the ingredients. See *In re Sussman*, 1943 C.D. 518; *In re Huellmantel* 139 USPQ 496; *In re Crockett* 126 USPQ 186.

One of ordinary skill in the art at the time the claimed invention was made, would have been motivated to mist all areas of the house with thyme oil at the claimed concentration in ranges in order to eliminate any residual traces of mold. As it is clear from the references that thyme oil is effective in eradicating mold, thyme oil was already shown to be effective in the claimed ranges, and spraying is a conventional means of dispersing anti-mold compositions.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

#### Summary

No claim is allowed.

#### Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Susan B. McCormick-Ewoldt whose telephone number is (571) 272-0981. The Examiner can normally be reached Monday through Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Bruce Campell, can be reached on (571) 272-0974. The official fax number for the group is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sbme

*Susan D. Coe*  
2-17-05  
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PATENT EXAMINER